

REMARKS/ARGUMENTS

Applicant respectfully requests reconsideration and allowance of this application in view of the amendments above and the following comments.

Purely editorial amendments are made to claim 28. In addition, new claims 37 and 38 are added. New claims 37 and 38 are both supported by the original specification in the last paragraph on page 6, particularly the last sentence thereof. Applicant does not believe that any of the amendments introduce new matter. An early notice to that effect is earnestly solicited.

Claims 18, 20-22, 25-34 and 36 were rejected under 35 USC § 103(a) as being obvious over National Starch and Chemical Corp (“GB ‘547”), GB 1,285,547, in view of Syed et al. (“Syed”), EP 0 829 255. In response, Applicant respectfully submits that the combination of GB ‘547 and Syed does not make out a *prima facie* case of the obviousness of any of the rejected claims. Even assuming, merely for the sake of argument, that the combination of GB ‘547 and Syed did make out a *prima facie* case of obviousness, such *prima facie* case is rebutted by the data in the instant specification proving the criticality of using amylose-containing starches in order to improve the color durability and stability of artificial color on hair. In either case, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection. An early notice that this rejection has been reconsidered and withdrawn is, therefore, also earnestly solicited.

First, Applicant renews his argument that the combination of GB ‘547 and Syed is improper. Since the Examiner’s response to arguments section does not appear to include a response to this argument, it appears to Applicant that the Examiner did not consider his

argument. However, the Examiner concedes that GB '547 does not disclose applying its materials to artificially colored hair. GB '547 allegedly discloses a hair setting composition comprising a pregelatinized cationic high amylose-containing starch which can be applied to wet hair and provides desirable properties such as body and smoothness. Generally, GB '547 teaches that its hair setting composition is applied to the hair *after* it has been cleansed so that the hair setting composition remains in on the hair. Although the Examiner further alleges that the composition can be used as a crème rinse, at page 2 beginning at line 20, GB '547 discloses that its crème rinse is applied *after* the user's hair has been washed. According to GB '547, “[w]hen the treated hair has been dried, the film which has been deposited serves to maintain an electrically neutral balance and provides it with a desirable silky resiliency.” Thus, even with the crème rinse, the composition of GB '547 not only remains on the hair, but it is applied after shampooing. In contrast, Syed requires rinsing the hair such that all chemicals are removed from the hair after chemical processing, after which time the hair may be normalized with a mild shampoo. Accordingly, where the basic principle taught by GB '547 is to retain its composition (actives) on previously cleansed hair, the basic principle taught by Syed is to rinse off all of its chemical composition from the hair prior to rinsing and cleansing so as to remove any residual active ingredients. Thus, Applicant respectfully submits that it is improper for the Examiner to combine GB '547 with Syed as their principles of operation are different and the combination would change the principle of operation of the prior art invention being modified.

In this regard, Applicant refers the Examiner to *MPEP* § 2143.01(VI), entitled “**The Proposed Modification Cannot Change the Principle of Operation of a Reference.**”

Applicants respectfully submit that the Examiner’s proposed combination of GB '547 and Syed,

exactly because the proposed combination would change the principle of operation of the primary reference, violates this basic principle of patent law and, therefore, is presumptively improper.

Regarding instant claim 23, Applicant points out that GB'547 explains that the cationic starches of their invention act by "...effectively balancing or neutralizing the inherent negative charges of the hair..." (page 2 lines 27-28). Therefore, GB'547 requires a cationically charged starch in order to operate properly. Instant claim 23 limits the modification to a non-ionically modified starch and thus would not, according to GB'547 be functional.

Regarding instant claim 36, Applicant respectfully submits that the Examiner takes liberty to assume that hair conditioners are rinse out, yet GB'547 specifically states (at page 2, lines 32-34) "...[w]hen the treated hair is dried, the film which has been deposited serves to maintain..." which indicates that the material was not rinsed off. GB'547 specifically teaches that the conditioner is applied *after* the hair is washed (page 2 lines 24-25). The instant claim 36 refers to the treatment *before* cleaning or rinsing of the hair.

In short, Applicant respectfully submits that the proposed combination of GB '574 and Syed is improper, and that all of the rejected claims should not be rejected, and that claims 23 and 36 are nonobvious for additional reasons.

Second, Applicant respectfully submits that even if GB '547 and Syed could be properly combined, the combination does not teach or suggest that applying a composition comprising a pregelatinized amylose-containing starch to artificially colored hair should improve the color durability and stability of the artificial color on hair. The Examiner concedes that GB '547 does not disclose applying its composition to artificially colored hair, and, therefore, presumably

would also concede that GB '547 could not teach that application of its composition to artificially colored hair would improve the color durability or stability of the artificial color on hair. Accordingly, the suggestion of the present method must come from Syed. However, Applicant can find no teaching or suggestion in Syed, and the Examiner has not pointed to any, that application of a composition comprising an amylose-containing starch to artificially colored hair should improve the color durability and stability of the artificial color on hair. Indeed, Syed is concerned with improvement of **structural damage** to hair. See, Syed, for example, at page 2, lines 31-33, and 50-51; page 2, line 57, through page 3, line 2; page 10, lines 12-14; and page 19, lines 19-22. The Examiner has shown no relationship between protection against structural damage to hair and the instantly claimed improvement in the color durability and stability of the artificial color on hair. Indeed, the present invention will improve the color durability and stability of the artificial color on both damaged and undamaged hair, so the benefits that Syed mentions are not the benefits that are presently claimed.

Towards the end of the first paragraph on page 4 of the Office Action, the Examiner cites to *Atlas Powder Co. v. Ireco Inc.* and *In re Best* for certain propositions concerning inherent properties present in an “old composition” and “in the prior art,” respectively. In response, Applicant respectfully submits that such cases have no bearing here as the facts are clearly distinguished. Thus, Applicant is claiming a method, and the method is conceded by the Examiner not to be an old method and not to exist in the prior art as the claims are not rejected as being anticipated or lacking novelty. Indeed, the Examiner concedes that GB '547 does not teach applying to artificially colored hair. It is only by the combination of GB '547 with Syed that a completely **hypothetical** case is made that it would have been obvious to apply the composition

of GB '547 to colored hair. However, as noted, the fact that the Examiner has constructed this hypothetical case does not mean that the instant method is an “old method,” or “in the prior art.” Quite the contrary, the need of the Examiner to construct this hypothetical case means that the instant method is not an old method, and is not in the prior art. Accordingly, the court cases on which the Examiner relies do not, therefore, justify a continued rejection of Applicant’s claims.

With respect to the issue of inherency, it might be helpful for the Examiner to consider the decision in *In re Shetty*, 195 USPQ 753, 756-757 (CCPA 1977). The claims therein were drawn to a method of curbing appetite in animals by administering to the animals certain adamantane compounds. Certain similar compounds had previously been administered to animals, *but for other purposes*, i.e., to combat viral infections, to reduce blood sugar content and to treat depression. The Examiner therein reasoned that the claimed method was obvious because the compounds had previously been administered to animals in the same amount and, thus, the prior art technically taught the method step claimed.

The Court, in response, held that the *purpose* that is to be achieved is a factor to be considered in the obviousness of a claimed method of use. Thus, on pages 756-757, the Court comments:

“The issue here is whether the claimed method of curbing appetite would have been obvious. That appellant’s ‘amount effective to curb appetite’ corresponds to or inheres in Narayanan’s amount ‘to combat microbial infestation’ does not persuade us of the obviousness of appellant’s method. As this court said in *In re Naylor* [citations omitted]:

*[Inherency] is quite immaterial if, as the record establishes here, one of ordinary skill in the art would not appreciate or recognize that inherent result. ****

*** we find nothing in the record which would afford one of ordinary skill reason to anticipate that a trial *** [of the combined prior art teachings] would be successful in producing the polymer recited in the claims.

The Patent Office has failed to show a reasonable expectation, or some predictability, that Brake's compound *would be an effective appetite suppressant* if administered in the dosage disclosed by Narayanan. The mere hindsight assertion that corresponding dosages render appellant's method obvious is untenable. *Prior to appellant's disclosure, none of the adamantane compounds in any of the references suggested a use, much less a dosage, for curbing appetite.* What we said in *In re Spormann* [again, citations omitted], relative to inherency applies equally here:

As we pointed out in In re Adams [citations omitted], the inherency of an advantage and its obviousness are entirely different questions. That which may be inherent is not necessary known. Obviousness cannot be predicated on what is unknown (emphasis added)."

In similar vein, nothing in the combination of GB '547 and Syed teaches or suggests that application of a composition comprising amylose-containing starch to artificially colored hair should improve the color durability and stability of the artificial color on hair. GB '547 is completely silent about any benefit to artificially colored hair, and Syed at best suggests

protection against structural damage to hair. There is no teaching or suggestion in either reference and, thus, in the combination of references of any improvement in the color durability and stability of the artificial color on hair.

Third, Applicant draws the attention of the Examiner to the data in the instant specification, particularly instant Example 4, and the data in the Table on page 15, proving the criticality of using amylose-containing starch in order to achieve the benefits described therein, and respectfully submits that nothing in the combination of GB '547 and Syed teaches or suggest such criticality, which, therefore, must be considered to be an unexpected result indicative of nonobviousness.

Further on this point, Applicant points out that repeated washing without the use of the claimed method will result in the fading of the artificial coloring. While damaged hair will look different from undamaged hair, this is not really related to the present invention. The inventive method will apply to any hair, including damaged or undamaged. That is, the degree of structural damage to the hair is not important, but rather the comparison should be for the artificial color on the hair and as shown in the experimental section, the effect on the hair with a number of washings. Example 4 shows a comparison of 10 wash cycles utilizing the method of the instant invention compared to various number of wash cycles without using the method of the invention. As can be seen in ID# LO1, all 8 panelists evaluated the color of the hair using the method of the invention after 10 wash cycles to be equivalent in color to the non-treated hair after only 5 wash cycles. From this table it is also shown that non-amylose starch (LO11 and LO12) did not work. All of the other polymers (synthetic and natural based, LO13 to LO20) also did not function to protect the color of the hair.

Clearly, these data prove that in order to improve the color durability and stability of artificial color on the hair, it is necessary and, thus, critical, to use an amylose-containing starch. Such criticality cannot be gleaned from either GB '547 or Syed. As noted previously, the Examiner concedes that GB '547 does not discuss artificially colored hair at all and, therefore, cannot teach or suggest any improvement in color durability and stability of artificial color on artificially colored hair. And, as also noted previously, Syed's suggested advantages relate to improvement in structural damage, which, again, has nothing to do with the instantly demonstrated improvement in color durability and stability of artificial color on artificially colored hair. Further, Syed does not teach or suggest the criticality of using amylose-containing starches even to achieve Syed's alleged improvement in structural damage. Thus, the starch hydrolysates of Syed could either be amylose-containing or not, as Syed is silent in this regard.

Applicant respectfully submits that Syed's starch hydrolysates could be produced by degradation of **any** starch, amylase-containing or not amylase-containing. On the bottom of page 6 of Syed, "...addition of a sugar or starch hydrolysate..."), is taken to mean that this is corn syrup solids or very degraded starches. But, what is taught as the starch hydrolysate of Syed is so small that it would **not** be considered by one of ordinary skill in the art to be amylose-containing. The chain length of these types of starch hydrolysates are typically on the order of 10 repeat units (or less), and therefore not amylose or amylopectin, but rather maltodextrins. See page 6, lines 25-26 of Syed for a definition. Since the instantly demonstrated benefits are not apparent from either GB '547 or Syed, and the criticality of using amylose-containing starches in order to achieve the demonstrated improvements on artificially colored hair cannot be gleaned from Syed, the showing in the instant specification must be regarded as surprising and, therefore, unexpected, and, thus, also as objective evidence of nonobviousness. Further, although these data are not in

declaration form, consistent with the rule that *all* evidence of nonobviousness must be considered when assessing patentability, the Examiner must consider data in the specification in determining whether the claimed invention provides unexpected results. *In re Soni*, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995).

In view of the foregoing, Applicant respectfully submits that this rejection is in error and should be reconsidered and withdrawn. An early notice that this rejection has been reconsidered and withdrawn is earnestly solicited.

Claims 18, 20, 21, 23-25 and 28-36 were rejected under 35 USC § 103(a) as being obvious over Paul et al. ("Paul"), US 6,344,183, in view of Syed. In response, Applicant respectfully submits that the combination of Paul and Syed does not make out a *prima facie* case of the obviousness of any of the rejected claims. Even assuming, merely for the sake of argument, that the combination of Paul and Syed did make out a *prima facie* case of obviousness, such *prima facie* case is rebutted by the data in the instant specification proving the criticality of using amylose-containing starches in order to improve the color durability and stability of artificial color on hair. In either case, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection as well. An early notice that this rejection has been reconsidered and withdrawn is, therefore, also earnestly solicited.

Applicant respectfully submits that the proposed combination of Paul and Syed suffers the same above-noted defects of GB '547 and Syed. Thus, the Examiner also concedes that Paul, like GB '547, does not teach or suggest applying its composition to artificially colored hair. Also, as was the case with GB '547, the basic principle taught by Paul is to retain its composition

(actives) on previously cleansed hair, which means that Paul is hopelessly at odds with Syed and, therefore, not properly combinable with Syed. Also, because Paul does not teach application to artificially colored hair, and Syed has the aforementioned defects, the combination of Paul and Syed still does not teach or suggest that applying a composition comprising a pregelatinized amylose-containing starch to artificially colored hair should improve the color durability and stability of the artificial color on hair. Even if Paul and Syed could be properly combined, there is also still nothing in the combination of Paul and Syed that teaches or suggests the criticality of using amylose-containing starch in order to realize the improvement in the color durability and stability of the artificial color on hair demonstrated by the data in the instant specification. Such data showing the criticality of using amylose-containing starch in order to realize these improvements are an unexpected result even in view of the combination of Paul and Syed, which is, therefore, proof of nonobviousness.

In view of the foregoing, Applicant respectfully submits that this rejection also is in error and should be reconsidered and withdrawn. An early notice that this rejection also has been reconsidered and withdrawn is earnestly solicited.

Applicant believes that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicant also believes that this application is in condition for immediate allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Early and favorable action is earnestly solicited.

Respectfully submitted,

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